ABSTRACT OF THE DISCLOSURE

The present invention reduces the effective dielectric constant of the interlayer insulating film while inhibiting the decrease of the reliability of the semiconductor device, which otherwise is caused by a moisture absorption. A copper interconnect comprising a Cu film 209 is formed in multilayer films comprising a L-OxTM film 203 and a SiO₂ film 204. Since the L-OxTM film 203 comprises ladder-shaped siloxane hydride structure, the film thickness and the film characteristics are stable, and thus changes in the film quality is scarcely occurred during the manufacturing process.

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